

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/581,183  
Source: IFWP  
Date Processed by STIC: 6/19/06

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 06/19/2006

PATENT APPLICATION: US/10/581,183

TIME: 11:23:11

Input Set : A:\14875-162US1.txt

Output Set: N:\CRF4\06192006\J581183.raw

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3 <110> APPLICANT: Tsunoda, Hiroyuki
4     Habu, Kiyoshi
6 <120> TITLE OF INVENTION: EXPRESSION SYSTEMS USING MAMMALIAN BETA-ACTIN
PROMOTER
8 <130> FILE REFERENCE: 14875-162US1
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/581,183
C--> 10 <141> CURRENT FILING DATE: 2006-06-01
10 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/018006
11 <151> PRIOR FILING DATE: 2004-12-03
13 <150> PRIOR APPLICATION NUMBER: JP 2003-405269
14 <151> PRIOR FILING DATE: 2003-12-03
16 <160> NUMBER OF SEQ ID NOS: 39
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1577
22 <212> TYPE: DNA
23 <213> ORGANISM: Mus musculus
25 <400> SEQUENCE: 1
26 gggagtgact ctctgtccat tcaatccagg cccgcgctgt ccctcaaaca agaggccaca      60
28 caaatagggt cggggcctcg atgctgacct tcatccactt aagtgtctga tatccacgtg      120
30 acatccacac ccagagggtc ctgggggtgt tgggtgacct ccagaatgca ggcctagtaa      180
32 ccgagacatt gaatggggca gtgtccacaa gggcggaggc tattcctgta catctgggcc      240
34 tacggagcca gcacccatcg ccaaaactct tcatcctctt cctcaatctc gctttctctc      300
36 tcgctttttt ttttttttct tcttcttttt tttttttttt ttcaaaagga ggggagaggg      360
38 ggtaaaaaaa tgctgcactg tgcggcgagg ccggtgagtg agcgacgcgg agccaatcag      420
40 cggccgcggt tccgaaagtt gccttttatg gctcgagtgg ccgctgtggc gtcctataaa      480
42 acccggcggc gcaacgcgca gccactgtcg agtcgcgtcc acccgcgagc acagcttctt      540
44 tgcagctcct tcggtgcggg tccacaccgg ccaccaggta agcagggacg cggggcccag      600
46 cgggccttcg ctctctcgtg gctagtacct cactgcaggg tcctgaggat cactcagaac      660
48 ggacaccatg ggcgggtgga ggggtggtgcc gggcgcggga gcggacactg gcacagccaa      720
50 ctttacgcct agcgtgtaga ctctttgcag ccacattccc gcggtgtaga cactcgtggg      780
52 cccgctcccg ctcggtgcgt ggggcttggg gacacactag ggtcgcggtg tgggcatttg      840
54 atgagccggt gcggcttgcg ggtgttaaaa gccgtattag gtccatcttg agagtacaca      900
56 gtattgggaa ccagacgcta cgatcacgcc tcaatggcct ctgggtcttt gtccaaaccg      960
58 gtttgccat tgcgcttgcc gggcggggcg ggcgggcggc gggcgcggca gggccggctc      1020
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62 cgtgtgcgct agggaggag ctcttctctt cccctctctt ctagttagct gcgcgtgcgt      1140
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66 ggccgggtca cagtggcacg ggcgccctgt ttgcgcttcc tgctgggtgt ggtcgccctc      1260
68 cgcgcgcgca caagccgccc gtcggcgcag tgtaggcgga gcttgcgccc gtttggggag      1320
70 ggggcggagg tctggcttcc tgccctaggt ccgcctccgg gccagcgttt gccttttatg      1380
72 gtaataatgc ggccggtctg cgcttctctt gtcccttag ctggggcgcg cggcccttg      1440
74 cggctcgagc ccgcggcttg ccggaagtgg gcagggcggc agcggtgct cttggcggcc      1500
76 ccgaggtgac tatagccttc ttttgtgtct tgatagttcg ccatggatga cgatatcgct      1560

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78 gcgctggctcg tcgacaa                                     1577
81 <210> SEQ ID NO: 2
82 <211> LENGTH: 1542
83 <212> TYPE: DNA
84 <213> ORGANISM: Mus musculus
86 <400> SEQUENCE: 2
87 gggagtgact ctctgtccat tcaatccagg ccccgctgtt ccctcaaaca agaggccaca      60
89 caaatagggg cggggcctcg atgctgaccc tcatccactt aagtgtctga tatccacgtg      120
91 acatccacac ccagaggggtc ctgggggtggt tgggtgaccc ccagaatgca ggcctagtaa      180
93 ccgagacatt gaatggggca gtgtccacaa gggcgagggc tattcctgta catctggggc      240
95 tacggagcca gcacccatcg ccaaaactct tcatcctctt cctcaatctc gctttctctc      300
97 tcgctttttt ttttttttct tttttttt tttttttt ttcaaaagga ggggagaggg      360
99 ggtaaaaaaa tgctgcactg tggggcgagg cgggtgagtg agcgacgcgg agccaatcag      420
101 cggccgcctg tccgaaagtt gccttttatg gctcgagtgg ccgctgtggc gtcctataaa      480
103 acccggcggc gcaacgcgca gccactgtcg agtcgcgtcc acccgcgagc acagcttctt      540
105 tgcagctcct tcgttgccgg tccacaccgg ccaccaggta agcagggagc ccggggcccg      600
107 cgggccttcg ctctctcgtg gctagtacct cactgcaggg tcttgaggat cactcagaac      660
109 ggacaccatg gggcggtgga ggggtggtgcc gggccgcgga gcggaactcg gcacagccaa      720
111 ctttacgcct agcgtgtaga ctctttgcag ccacattccc gcggtgtaga cactcgtggg      780
113 cccgctcccg ctcggtgcgt ggggcttggg gacacactag ggtcgcggtg tgggcatttg      840
115 atgagccggg gcggcttgcg ggtgttaaaa gccgtattag gtccatcttg agagtacaca      900
117 gtattgggaa ccagacgcta cgatcacgcc tcaatggcct ctgggtcttt gtccaaaccg      960
119 gtttgccctat tcggcttgcc gggcgggcgg gcggggcggg gggcgcgcca gggccggctc      1020
121 ggcgggggtg gggctgggat gccactgcgc gtgcgctctc tatcactggg catcgaggcg      1080
123 cgtgtgcgct agggagggag ctcttcctct cccctcttct ctagttagct gcgcgtgcgt      1140
125 attgaggctg ggagcgcggc tgcccggggg tgggcgaggg cggggccggt gtccggaagg      1200
127 ggcgggggtc cagtggcacg ggcgccttgt ttgcgcttcc tgcgtgggtg ggtcgccctc      1260
129 cgcgcgcgca caagccgccc gtcggcgagc tgtaggcgga gcttgcgccc gtttggggag      1320
131 gggcgaggag tctggcttcc tgccctaggt ccgcctccgg gccagcggtt gccttttatg      1380
133 gtaataatgc ggccggtctg cgcttccctt gtcccttgag cttgggcgcg cgccccctgg      1440
135 cggctcgagc ccgcggcttg ccggaagtgg gcagggcggc agcggtgctt cttggcgggc      1500
137 ccgaggtgac tatagccttc ttttgtgtct tgatagttcg cc                               1542
140 <210> SEQ ID NO: 3
141 <211> LENGTH: 604
142 <212> TYPE: DNA
143 <213> ORGANISM: Woodchuck hepatitis virus
145 <400> SEQUENCE: 3
146 tctagaaatc aacctctgga ttacaaaatt tgtgaaagat tgactgggtat tcttaactat      60
148 gttgtctcct ttacgctatg tggatacgtc gctttaatgc ctttgtatca tgctattgct      120
150 tcccgtatgg ctttcatttt ctctccttgg tataaatcct ggttgctgtc tctttatgag      180
152 gagttgtggc ccgttgtcag gcaacgtggc gtggtgtgca ctgtgtttgc tgacgcaacc      240
154 cccactgggt ggggcattgc caccacctgt cagctccttt cggggacttt cgctttcccc      300
156 ctccctattg ccacggcgga actcatcgcc gcctgccttg cccgctgctg gacaggggct      360
158 cggtgttggt gactgacaa ttccgtggtg ttgtcgggga agctgacgtc ctttccatgg      420
160 ctgctcgccg gtgttgccac ctggattctg cgcgggacgt ccttctgcta cgtcccttcg      480
162 gccctcaatc cagcggacct tccttccgcg ggctgctgct cggtctgctg gcctcttcgg      540
164 cgtcttcgcc ttgcacctca gacgagtcgg atctcccttt gggccgcctc cccgctgtc      600
166 taga                                              604
169 <210> SEQ ID NO: 4

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Input Set : A:\14875-162US1.txt

Output Set: N:\CRF4\06192006\J581183.raw

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170 <211> LENGTH: 366
171 <212> TYPE: DNA
172 <213> ORGANISM: Homo sapiens
174 <400> SEQUENCE: 4
175 tagttatttaa tagtaatcaa ttacggggtc attagttcat agcccatata tggagttccg      60
177 cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc cccgccatt      120
179 gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc attgacgtca      180
181 atgggtggag tatttacggg aaactgccc cttggcagta catcaagtgt atcatatgcc      240
183 aagtagcccc cctattgacg tcaatgacgg taaatggccc gcctggcatt atgccagta      300
185 catgacctta tgggactttc ctacttggca gtacatctac gtattagtca tcgctattac      360
187 catggt
190 <210> SEQ ID NO: 5
191 <211> LENGTH: 660
192 <212> TYPE: DNA
193 <213> ORGANISM: Mus musculus
195 <400> SEQUENCE: 5
196 tcctggattg gcagccgctg tagaagctat gacagaatac aagcttgtgg tgggtggcgcg      60
198 tggaggcggt ggaaagagtg ccctgaccat ccagctgacg cagaaccact ttgtggacga      120
200 gtatgatccc actatagagg actcctaccg gaaacagggt gtcattgatg gggagacatg      180
202 tctactggac atcttagaca cagcagggtc agaagagtat agtgccatgc gggaccagta      240
204 catgcgcaca ggggagggtc tcctctgtgt atttgccatc aacaacacca agtccttcga      300
206 ggacatccat cagtacaggg agcagatcaa gcgggtgaaa gattcagatg atgtgccaat      360
208 ggtgctggtg ggcaacaagt gtgacctggc tgctcgact gttgagtctc ggcaggccca      420
210 ggaccttgct cgcagctatg gcatcccta cattgaaaca tcagccaaga cccggcaggg      480
212 cgtggaggat gccttctata cactagtccg tgagattcgg cagcataaat tgcggaaact      540
214 gaacccaccc gatgagagtg gtccctggct catgagctgc aaatgtgtgc tgtcctgaca      600
216 ccagggtgagg cagggaccag cgagacgtct ggggcagtga cctcagctag ccagatgaac      660
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 576
221 <212> TYPE: DNA
222 <213> ORGANISM: Mus musculus
224 <400> SEQUENCE: 6
225 gccaccatga cagaatacaa gcttgtggtg gtggcgctg gaggcgtggg aaagagtgcc      60
227 ctgaccatcc agctgatcca gaaccacttt gtggacgagt atgatccac tatagaggac      120
229 tcctaccgga aacagggtgt cattgatggg gagacatgtc tactggacat cttagacaca      180
231 gcagggtcaag aagagtatag tgccatgcgg gaccagtaca tgcgcacagg ggagggttc      240
233 ctctgtgtat ttgccatcaa caacaccaag tccttcgagg acatccatca gtacagggag      300
235 cagatcaagc gggtgaaaga ttcagatgat gtgccaatgg tgctggtggg caacaagtgt      360
237 gacctggctg ctgcactgt tgagtctcgg caggcccagg accttgctcg cagctatggc      420
239 atccctaca ttgaaacatc agccaagacc cggcagggcg tggaggatgc cttctataca      480
241 ctagtccgtg agattcggca gcataaattg cggaaactga acccaccga tgagagtgg      540
243 cctggctgca tgagctgcaa atgtgtgctg tcctga
246 <210> SEQ ID NO: 7
247 <211> LENGTH: 189
248 <212> TYPE: PRT
249 <213> ORGANISM: Mus musculus
251 <400> SEQUENCE: 7
252 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Val Gly Val Gly Lys
253 1          5          10          15

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255 Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
256          20          25          30
258 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
259          35          40          45
261 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
262          50          55          60
264 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
265 65          70          75          80
267 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His Gln Tyr
268          85          90          95
270 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Asp Asp Val Pro Met Val
271          100         105         110
273 Leu Val Gly Asn Lys Cys Asp Leu Ala Ala Arg Thr Val Glu Ser Arg
274          115         120         125
276 Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Tyr Ile Glu Thr
277          130         135         140
279 Ser Ala Lys Thr Arg Gln Gly Val Glu Asp Ala Phe Tyr Thr Leu Val
280 145         150         155         160
282 Arg Glu Ile Arg Gln His Lys Leu Arg Lys Leu Asn Pro Pro Asp Glu
283          165         170         175
285 Ser Gly Pro Gly Cys Met Ser Cys Lys Cys Val Leu Ser
286          180         185
289 <210> SEQ ID NO: 8
290 <211> LENGTH: 188
291 <212> TYPE: PRT
292 <213> ORGANISM: Homo sapiens
294 <400> SEQUENCE: 8
295 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Val Gly Val Gly Lys
296 1          5          10          15
298 Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
299          20          25          30
301 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
302          35          40          45
304 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
305          50          55          60
307 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
308 65          70          75          80
310 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
311          85          90          95
313 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
314          100         105         110
316 Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
317          115         120         125
319 Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
320          130         135         140
322 Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
323 145         150         155         160
325 Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
326          165         170         175

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328 Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met

329 180 185

332 &lt;210&gt; SEQ ID NO: 9

333 &lt;211&gt; LENGTH: 27

334 &lt;212&gt; TYPE: DNA

335 &lt;213&gt; ORGANISM: Artificial

337 &lt;220&gt; FEATURE:

338 <223> OTHER INFORMATION: Description of Artificial Sequence : Artificially  
Synthesized Pri

339 mer Sequence

341 &lt;400&gt; SEQUENCE: 9

342 gggagtgtact ctctgtccat tcaatcc 27

345 &lt;210&gt; SEQ ID NO: 10

346 &lt;211&gt; LENGTH: 27

347 &lt;212&gt; TYPE: DNA

348 &lt;213&gt; ORGANISM: Artificial

350 &lt;220&gt; FEATURE:

351 <223> OTHER INFORMATION: Description of Artificial Sequence : Artificially  
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352 mer Sequence

354 &lt;400&gt; SEQUENCE: 10

355 ttgtcgacga ccagcgcagc gatatcg 27

358 &lt;210&gt; SEQ ID NO: 11

359 &lt;211&gt; LENGTH: 26

360 &lt;212&gt; TYPE: DNA

361 &lt;213&gt; ORGANISM: Artificial

363 &lt;220&gt; FEATURE:

364 <223> OTHER INFORMATION: Description of Artificial Sequence : Artificially  
Synthesized Pri

365 mer Sequence

367 &lt;400&gt; SEQUENCE: 11

368 agatctggga gtgactctct gtccat 26

371 &lt;210&gt; SEQ ID NO: 12

372 &lt;211&gt; LENGTH: 26

373 &lt;212&gt; TYPE: DNA

374 &lt;213&gt; ORGANISM: Artificial

376 &lt;220&gt; FEATURE:

377 <223> OTHER INFORMATION: Description of Artificial Sequence : Artificially  
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378 mer Sequence

380 &lt;400&gt; SEQUENCE: 12

381 aagcttggcg aactatcaag acacaa 26

384 &lt;210&gt; SEQ ID NO: 13

385 &lt;211&gt; LENGTH: 50

386 &lt;212&gt; TYPE: DNA

387 &lt;213&gt; ORGANISM: Artificial

389 &lt;220&gt; FEATURE:

390 <223> OTHER INFORMATION: Description of Artificial Sequence : Artificially  
Synthesized Pri

391 mer Sequence

393 &lt;400&gt; SEQUENCE: 13

394 aatcaacctc tggattacaa aatttggtgaa agattgactg gtattcttaa 50

397 &lt;210&gt; SEQ ID NO: 14

398 <211> LENGTH: 50

**RAW SEQUENCE LISTING ERROR SUMMARY**

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**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33

Seq#:34,35,36,37,38,39



**VERIFICATION SUMMARY**

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Input Set : A:\14875-162US1.txt

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date